



DIVISION OF
CORPORATION FINANCE

UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
WASHINGTON, D.C. 20549

January 30, 2012

Via E-mail

Mr. Morgan F. Johnston
Senior Vice President, General Counsel, and Secretary
GreenHunter Energy, Inc.
1048 Texan Trail
Grapevine, TX 76051

**Re: GreenHunter Energy, Inc.
Amendment No. 1 to Registration Statement on Form S-1
Filed January 18, 2012
File No. 333-178386**

Dear Mr. Johnston:

We have reviewed your response letter and the above-referenced filing, and we have the following comments.

General

1. Please amend your registration statement to include the information required by Item 402 of Regulation S-K for the fiscal year ended December 31, 2011. Refer to Question 117.05 of our Regulation S-K Compliance and Disclosure Interpretations.

Outside Front Cover Page of the Prospectus

2. Please disclose the trading symbol for your common stock.

Capitalization, page 24

3. Please revise the capitalization table so that it does not reflect the receipt or application of offering proceeds.

Information Incorporated by Reference, page 81

4. Please note that if you elect to incorporate information by reference, you must specifically incorporate by reference into the prospectus your latest annual report on Form 10-K. You must also specifically incorporate by reference all other reports filed pursuant to Section 13(a) or 15(d) of the Securities Exchange Act of 1934, as amended, since the end of the fiscal year covered by the annual report incorporated by reference. Otherwise, you must include all of the Form S-1 information in the registration statement. Refer to Item 12 of Form S-1, and amend your registration statement accordingly.

Morgan F. Johnston
GreenHunter Energy, Inc.
January 30, 2012
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Please contact Jessica Dickerson, Staff Attorney, at (202) 551-3749 or me at (202) 551-3397 with any questions.

Sincerely,

/s/ Jay Ingram

Jay Ingram
Legal Branch Chief

cc: Via E-mail
Michael Hedge
K&L Gates LLP